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EXAMINER
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SHEDRICK, CHARLES TERRELL

ART UNIT	PAPER NUMBER
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2617

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/26/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/643,763

Applicant(s)

SHISHIDO ET AL.

Examiner

Charles Shedrick

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Arguments*

Applicant's arguments filed 1/22/07 have been fully considered but they are not persuasive.

On page 9 of Applicant's remarks dated 1/22/07 the Applicant states:

*Nitadori does not disclose or suggest Applicants' claimed subject matter. Nitadori generally describes a mobile communication system in which mobile stations installed in vehicles traveling on a road can communicate with a base station on the roadside and with mobile stations in front of and behind the mobile station (e.g., Abstract; col. 4, II. 21-50; col. 5, II. 5-25).*

For the purpose of further clarification and understanding the Examiner would also like to direct the Applicant's attention to col. 16 lines 8-18. Nitadori teaches that communication can initiate between the mobile stations on a road which base stations are not installed.

Col. 17 lines 42 – 67 teaches that As described above, the present embodiment establishes continuous packet communication channels suffering from little interference between traveling vehicles, or between the traveling vehicles and the roadside fixed communication network. This makes it possible to automatically set round about routes passing through other mobile stations or base stations, and to implement various types of continuous information communication such as data transmission or telephone. At the same time, since the mobile stations and base stations each have a position measurement function in this embodiment, the positions of the mobile stations of the traveling vehicles can be obtained. The information can be used for traffic control, traffic statistics collection, or danger monitoring. Furthermore, the platooning or autonomous driving of vehicles can be achieved which requires the communications of control data between

the mobile stations. Thus, one such system can meet the requirements for information communication and driving control, which enables the system to be widely used in common as an information infrastructure on roads. In addition, using the communications between the traveling vehicles and the position measuring function facilitates the information communication even when the mobile stations travel on a road on which no base station is installed, thereby implementing the driving control such as the platooning or autonomous driving.

On page 9 of Applicant's remarks dated 1/22/07 the Applicant states:

Nitadori does not register a mobile unit as a member of a virtual logic network if the mobile unit satisfies a predetermined membership condition associated with the virtual logic network by referring to information acquired from the mobile unit.

However, the examiner respectfully disagree. A predetermined membership condition must be met in order to register a mobile unit as a member. For example, information is added (or registered) in the router based in information acquired from packets transferred from other mobile units. It would make sense because how else would the prior art distinguish network(s) and sub-networks using routing protocols used in an ordinary computer network (see col. 6 lines 40 –41).

On page 9 of Applicant's remarks dated 1/22/07 the Applicant states:

Nitadori does not teach *automatically selecting an appropriate virtual logic network according to a monitored event when the event takes place, selecting a communicating party from among the members of the selected virtual logic network, and communicating with the selected party,*

1. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

2. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Applicant has attempted to distinguish the claimed invention from the prior art by adding the limitation "Automatically" to the claimed limitation. However, based on the combination applied to the claimed limitation does not distinguish over the combination. On page 10 of Applicant's remarks dated 1/22/07 the Applicant states: Himmelstein does not teach "an importance level determiner for determining an importance level regarding the necessity for communication with another mobile unit on the basis of the condition" as claimed. However. The Examiner respectfully disagree.

Himmelstein teaches that the priority field 62 is an indicator of the urgency of the transmitted communication. The priority field 62 can be a numeric priority from one to ten; with urgent communications having the highest priority of one (e.g., communications from law enforcement officials) and non-urgent communications having the lowest priority of ten, (e.g. advertisements). FIG. 6 shows the procedure for processing communication packets 50 by the microprocessor 40 is shown.

On page 11 of Applicant's remarks dated 1/22/07 the Applicant states:

Art Unit: 2617

On page 2 of the Office Action, the Examiner appears to argue that, although the prior art does not have the functional units recited in the claims, the functional claim limitations are merely "a recitation of intended use" that does not structurally distinguish over the prior art, and the prior art includes a microprocessor that is "capable of performing the intended use." The Examiner is wrong on both arguments. First, these functional limitations are not "recitations of intended use" as alleged by the Examiner, but rather are a perfectly appropriate way to describe a claimed structure. "There is nothing inherently wrong with defining some part of an invention in functional terms. Functional language does not, in and of itself, render a claim improper."

M.P.E.P. § 2173.05(g); see also M.P.E.P. § 2173.01 (Applicant may use functional language..."; "a claim may not be rejected solely because of the type of language used to define the subject matter"). This is particularly appropriate where, as here, the claimed structural units may be implemented by a microprocessor executing predetermined programs. Second, the microprocessor in the cited art is not capable of performing the recited functions. There is no disclosure in the cited art that the microprocessor can or should be programmed this way, and even if it could be, it would no longer work as intended in the reference.

The Examiner respectfully notes that if the claims were improper then the proper steps would have been taken in the form of a 112 rejection or formal objection to the subject matter. The basis of the statement was to respectfully assist the Applicant in understanding the Examiner's interpretation and treatment of the limitation for the purpose of perhaps clarification by the Applicant in the subsequent response. However, it appears that at this point the Examiner must rely on the sole interpretation of the specification in light of the Applicant's lack to clarify treatment. Upon careful examination of the Applicants specification the Examiner is unable to

Art Unit: 2617

find an equivalent means to clarify the abstract structures (i.e., information to be sent decoder ?).

Therefore, in an effort to understand the invention the function of the abstract structure is examined. Based on the understanding of the function the cited prior art meets the limitation for the reasons stated above.

At this time the claim limitations are met by the prior art. It is somewhat unclear from the Applicants remarks, but it appears that the Applicant is attempting to establish a distinction over the prior art on the basis of the infrastructure. However, the claims are not written in a manner to do so since the mobiles can talk directly to one another and the routers of the mobile units have the same functionality as the routers of the control center. The infrastructure is simply an added advantage. A careful review of the prior art will note that most of the functionality of the infrastructure can also be processed by the mobiles directly (e.g., address translation/resolution etc.)

Therefore, the Examiner maintains the rejection of the claims in view of the amendments as proper.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

Art Unit: 2617

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims **1,5,6, and 9** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Nitadori (US Patent No.: 5,875,183)** in view of **Montague US Patent Pub. No.: 2002/0026266 A1**.

Consider **claim 1**, Nitadori teaches an automatic method for communication among mobile units, comprising the processing acts in a mobile unit of: acquiring information from another mobile unit through a physical network (**abstract, col. 5 lines 60-65, and col. 13 lines 7-46**); registering a mobile unit as a member of a virtual logic network if the mobile unit satisfies a predetermined membership condition associated with the virtual logic network by referring to the acquired information of the mobile unit (i.e., mobile units are registered in various routing tables and address database based on the condition or information in the packet. The routers can use this information to register the source or destination as part of the network based on conditions such as traffic management. Nitadori also noted that the router uses common routing protocols that are well known in the art) (**col. 5 line 60 – col. 6 line 60, col. 10 line 65- col. 12 line 15, col.**



Art Unit: 2617

**18 lines 34-40, and col. 14 line 49 – col. 16 line 7);** Monitoring at least one of the vehicle environment and a condition associated with a mobile unit for a predetermined event (i.e., Nitadori monitors at least one of the environment associated with a mobile a mobile unit for a predetermined event. The environment being at least broadly interpreted as the network environment which consists of networked vehicles. The predetermined event being at least broadly interpreted as any event required by the network that causes updates and changes such as position ) (**col. 5 line 60 – col. 6 line 60, col. 10 line 65- col. 12 line 15, col. 18 lines 34-40, and col. 14 line 49 – col. 16 line 7);** selecting an appropriate virtual logic network according to a monitored event when the event takes place (**col. 5 line 60 – col. 6 line 8, col. 14 line 49 –col. 15 line 15),** selecting a communicating party from among the members of the selected virtual logic network and communicating with the selected party (**col. 5 line 60 – col. 6 line 8, col. 14 line 49 –col. 15 line 15).**

However, Nitadori does not specifically teach Automatically selecting.

In analogous art Montague teaches Automatically selecting (i.e., see at least paragraph 0026).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Nitadori to include automatically selecting as taught by Montague for the purpose of emergency. Montague further teaches monitoring conditions associated with the driver (abstract, paragraph 0019) and automatically selecting the appropriate P/EMS (i.e., which also reads on emergency “network” or “environment”)(paragraphs 0008, 0011, and 0021).

Consider **claim 5**, Nitadori teaches an automatic method for communication among mobile units, comprising the processing acts of: acquiring information from another mobile unit

through a physical network (**abstract, col. 5 lines 60-65, and col. 13 lines 7-46**); defining a plurality of virtual logic networks, wherein each virtual logic network is associated with a different predetermined condition for membership (i.e., see at least references to the group number of **figure 10D**, a predetermined condition being at least the position of the vehicle) registering a mobile unit as a member of a virtual logic network if the mobile unit satisfies the predetermined condition associated with the virtual logic network by referring to the acquired information of the mobile unit (i.e., mobile units are registered in various routing tables and address database based on the condition or information in the packet. The routers can use this information to register the source or destination as part of the network based on conditions such as traffic management. Nitadori also noted that the router uses common routing protocols that are well known in the art) (**col. 5 line 60 – col. 6 line 60, col. 10 line 65- col. 12 line 15, col. 18 lines 34-40, and col. 14 line 49 – col. 16 line 7**); Monitoring at least one of the environment and a condition associated with a mobile unit for a predetermined event (i.e., Nitadori monitors at least one of the environment associated with a mobile a mobile unit for a predetermined event. The environment being at least broadly interpreted as the network environment. The predetermined event being at least broadly interpreted as any event required by the network that causes updates and changes) (**col. 5 line 60 – col. 6 line 60, col. 10 line 65- col. 12 line 15, col. 18 lines 34-40, and col. 14 line 49 – col. 16 line 7**); selecting one virtual logic network from among the plurality of virtual logic networks on the basis of an environment or situation change (**col. 5 line 60 – col. 6 line 8, col. 14 line 49 –col. 15 line 15**); and setting the selected virtual logic network as an active network(i.e., once the network or group is selected active

Art Unit: 2617

communication can take place which qualifies the network as active)(**col. 5 line – col. 6 line 8, col. 14 line 49 –col. 15 line 15**).

However, Nitadori does not specifically teach Automatically selecting.

In analogous art, Montague teaches Automatically selecting (i.e., **see at least paragraph 0026**).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Nitadori to include automatically selecting as taught by Montague for the purpose of emergency. Montague further teaches monitoring conditions associated with the driver (abstract, paragraph 0019) and automatically selecting the appropriate P/EMS (i.e., which also reads on emergency “network” or “environment”)(paragraphs 0008, 0011, and 0021).

Consider **claim 6 and as applied to the method for communication among mobile units according to claim 5**, Nitadori as modified by Montague teaches wherein the act of registering members further comprises: receiving information for specifying a mobile unit identity and a condition from a mobile unit (**col. 5 line 60 – col. 6 line 43, col. 9 lines 50 – line 65, col. 10 line 65 –col. 12 line 44, col. 14 line 49- col. 16 line 18, and col. 17 line 42 – col. 18 line 43**), and referring to the received information, and if the mobile unit satisfies any one of various conditions, then registering the mobile unit as a network member of a virtual network based on the condition (i.e., mobile units are registered in various routing tables and address database based on the condition or information in the packet. The routers can use this information to register the source or destination as part of the network based on conditions such as traffic management. Nitadori also noted that the router uses common routing protocols that are well known in the art) (**col. 5 line 60 – col. 6 line 60, col. 10 line 65- col. 12 line 15, col. 18**

**lines 34-40, and col. 14 line 49 – col. 16 line 7).**

Consider **claim 9** and **as applied to the method for communication among mobile units according to claim 5**, Nitadori as modified by Montague teaches wherein a particular member is selected from among the members constituting the active network on the basis of an environment or situation change of the driver or vehicle or in response to a driver's request (**col. 5 line 60– col. 6 line 8, col. 14 line 49 –col. 15 line 15**), and a connection to the selected member is established to communicate with the member (**col. 5 line 60 – col. 6 line 8, col. 14 line 49 –col. 15 line 15**).

Claims **2-4,7-8,10-18** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Nitadori (US Patent No.: 5,875,183)** in view of **Montague US Patent Pub. No.: 2002/0026266 A1** and further in view of **Himmelstein (U.S. Patent No.: 6,647,270)**.

Consider **claim 10**, Nitadori teaches a vehicular communication apparatus mounted on a vehicle to communicate with another mobile unit, comprising: an information acquirer **22** (i.e., the terminals of figure 2) for acquiring information from another mobile unit through a physical network (**abstract, col. 5 lines 60-65, and col. 13 lines 7-46**); a registrar **20** (i.e., **the router of figure 2**) for registering, in a member table (i.e., tables in the router or the tables in the directory that are built using information from the router), a mobile as a member of a virtual logic network if the mobile unit satisfies a predetermined membership condition associated with the virtual logic network by referring to the acquired information of the mobile unit (i.e., mobile units are registered in various routing tables and address database based on the condition or information in the packet. The routers can use this information to register the source or destination as part of the network based on conditions such as traffic management. Nitadori also noted that the router uses

Art Unit: 2617

common routing protocols that are well known in the art) (**col. 5 line 60 – col. 6 line 60, col. 10 line 65- col. 12 line 15, col. 18 lines 34-40, and col. 14 line 49 – col. 16 line 7**); an environment/condition monitor for monitoring at least one of the vehicle environment or condition or a driver for a predetermined event (i.e., Nitadori monitors at least one of the environment associated with a mobile a mobile unit for a predetermined event. The environment being at least broadly interpreted as the network environment. The predetermined event being at least broadly interpreted as any event required by the network that causes updates and changes) (**col. 5 line 60 – col. 6 line 60, col. 10 line 65- col. 12 line 15, col. 18 lines 34-40, and col. 14 line 49 – col. 16 line 7**); a driver or vehicle a communicating party selector 22 (i.e., also see **terminal 22 of figure 2** which has the ability to acquire and select) for selecting a communicating party by using the table of the virtual logic networks according to a monitored event when the event takes place and communicating with the selected party(**col. 5 line 60 – col. 6 line 8, col. 14 line 49 –col. 15 line 15**).

However, Nitadori does not specifically teach Automatically selecting.

In analogous art, Montague teaches Automatically selecting (i.e., **see at least paragraph 0026**).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Nitadori to include automatically selecting as taught by Montague for the purpose of emergency. Montague further teaches monitoring conditions associated with the driver (abstract, paragraph 0019) and automatically selecting the appropriate P/EMS (i.e., which also reads on emergency “network” or “environment”)(paragraphs 0008, 0011, and 0021).

However, Nitadori as modified by Montague does not specifically teach vehicular communication apparatuses mounted in vehicles.

In the same field of endeavor, Himmelstein teaches vehicular communication apparatuses mounted in vehicles **46 (figure 2) (col. 3 line 50- col. 4 line 21)**.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify as modified by Montague to include a vehicular communication apparatus mounted in the vehicle as taught by Himmelstein for the purpose of providing Audio and Visuals relating to the communication of vehicles to the occupants.

**Consider claim 14**, Nitadori teaches a vehicular communication apparatus mounted on a vehicle to communicate with another mobile unit, comprising: an information acquirer for acquiring information from another mobile unit through a physical network (**abstract, col. 5 lines 60-65, and col. 13 lines 7-46**); defining a plurality of virtual logic networks, wherein each virtual logic network is associated with a different predetermined condition for membership (i.e., see at least references to the group number of **figure 10D**, a predetermined membership condition being at least the position of the vehicle) a registrar registering a mobile unit as a member of a virtual logic network if the mobile unit satisfies a predetermined condition associated with the virtual logic network by referring to the acquired information of the mobile unit (i.e., mobile units are registered in various routing tables and address database based on the condition or information in the packet. The routers can use this information to register the source or destination as part of the network based on conditions such as traffic management. Nitadori also noted that the router uses common routing protocols that are well known in the art) (**col. 5 line 60 – col. 6 line 60, col. 10 line 65- col. 12 line 15, col. 18 lines 34-40, and col. 14 line 49 –**

**col. 16 line 7**); a monitor for monitoring at least one of the vehicle environment or situation of a driver (i.e., Nitadori monitors at least one of the environment associated with a mobile a mobile unit for a predetermined event. The environment being at least broadly interpreted as the network environment. The predetermined event being at least broadly interpreted as any event required by the network that causes updates and changes) (**col. 5 line 60 – col. 6 line 60, col. 10 line 65- col. 12 line 15, col. 18 lines 34-40, and col. 14 line 49 – col. 16 line 7**); and a communicating party selector for selecting a particular virtual logic network from the plurality of virtual logic networks on the basis of an environment or situation change (**col. 5 line 60 – col. 6 line 8, col. 14 line 49 –col. 15 line 15**), setting the selected virtual logic network as an active network(i.e., once the network or group is selected active communication can take place which qualifies the network as active) (**col. 5 line – col. 6 line 8, col. 14 line 49 –col. 15 line 15**), and selecting a communicating party to effect communication with the selected party(**col. 5 line 60 – col. 6 line 8, col. 14 line 49 –col. 15 line 15**).

However, Nitadori does not specifically teach Automatically selecting.

In analogous art, Montague teaches Automatically selecting (i.e., **see at least paragraph 0026**).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Nitadori to include automatically selecting as taught by Montague for the purpose of emergency. Montague further teaches monitoring conditions associated with the driver (abstract, paragraph 0019) and automatically selecting the appropriate P/EMS (i.e., which also reads on emergency “network” or “environment”)(paragraphs 0008, 0011, and 0021).

However, Nitadori as modified by Montague does not specifically teach vehicular communication apparatuses mounted in vehicles.

In the same field of endeavor, Himmelstein teaches vehicular communication apparatuses mounted in vehicles **46 (figure 2) (col. 3 line 50- col. 4 line 21)**.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify as modified by Montague to include a vehicular communication apparatus mounted in the vehicle as taught by Himmelstein for the purpose of providing Audio and Visuals relating to the communication of vehicles to the occupants.

Consider **claim 2** and as applied to the method for communication among mobile units according to claim 1, Nitadori as modified by Montague teaches wherein the act of registering a member creates a member table for registering members of networks in association with the virtual logic networks (i.e., mobile units are registered in various routing tables and address database based on the condition or information in the packet. The routers can use this information to register the source or destination as part of the network based on conditions such as traffic management. Nitadori also noted that the router uses common routing protocols that are well known in the art) **(col. 5 line 60 – col. 6 line 60, col. 10 line 65- col. 12 line 15, col. 18 lines 34-40, and col. 14 line 49 – col. 16 line 7)**, and the act of selecting a communicating party further comprises using the member table of the virtual logic networks to perform communication with the selected party **(col. 5 line 60– col. 6 line 8, col. 14 line 49 –col. 15 line 15)**.

However, Nitadori as modified by Montague does not specifically teach also creating a resource table for registering a capability of each member and the act of selecting a



communicating party further comprises using the resource table to perform communication with the selected party.

In the same field of endeavor, Himmelstein teaches creating a resource table (i.e., a log) for registering (i.e., logging) a capability of each member and the act of selecting a communicating party further comprises using the resource table to perform communication with the selected party (**col. 9 line 45-col. 10 line 40**).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Nitadori as modified by Montague to include the teachings of Himmelstein for the purpose of specifying groups in which communication may be directed and to prevent flooding of information to other users that may not interested.

Consider **claim 3** and as applied to the method for communication among mobile units according to claim 1, Nitadori as modified by Montague teaches wherein the physical network is formed by exchanging predetermined information among vehicular communication apparatuses mounted on individual vehicles (**col. 5 line 60 – col. 6 line 60, col. 10 line 65- col. 12 line 15, col. 18 lines 34-40, and col. 14 line 49 – col. 16 line 7**).

However, Nitadori as modified by Montague does not specifically teach vehicular communication apparatuses mounted in vehicles.

In the same field of endeavor, Himmelstein teaches vehicular communication apparatuses mounted in vehicles **46 (figure 2) (col. 3 line 50- col. 4 line 21)**.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Nitadori as modified by Montague to include a vehicular

Art Unit: 2617

communication apparatus mounted in the vehicle as taught by Himmelstein for the purpose of providing Audio and Visuals relating to the communication of vehicles to the occupants.

Consider **claim 4**, and as applied to the method for communication among mobile units **according to claim 3**, Nitadori as modified by Montague and further modified by Himmelstein teaches wherein the predetermined information includes at least the identity and position of a mobile unit (**col. 5 line 60 – col. 6 line 43, col. 9 lines 50 – line 65, col. 10 line 65 –col. 12 line 44, col. 14 line 49- col. 16 line 18, and col. 17 line 42 – col. 18 line 43**).

Consider **claims 7 and 16** and as applied to the method for communication among mobile units **according to claim 4 and the vehicle apparatus according to claim 14**, Nitadori as modified by Montague teaches wherein the act of registering members further comprises registering members in virtual logic networks to which they belong in association with the network members (**col. 5 line 60 – col. 6 line 60, col. 10 line 65- col. 12 line 15, col. 18 lines 34-40, and col. 14 line 49 – col. 16 line 7**).

However, Nitadori as modified by Montague does not specifically teach registering the capabilities of members.

In the same field of endeavor, Himmelstein teaches registering (i.e., based on logging) the capabilities of members (**col. 9 line 45-col. 10 line 40**).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Nitadori as modified by Montague to include the teachings of Himmelstein for the purpose of specifying groups in which communication may be directed and to prevent flooding of information to other users that may not interested.

Consider **claim 8 and 17** as applied to the method for communication among mobile units according to claim 7 and the vehicular apparatus of claim 14, Nitadori as modified by Montague teaches wherein a member table for registering members of the networks (**col. 5 line 60 – col. 6 line 60, col. 10 line 65- col. 12 line 15, col. 18 lines 34-40, and col. 14 line 49 – col. 16 line 7**) are created in association with virtual logic networks.

However, Nitadori as modified by Montague does not specifically teach a resource table for registering a capability of each member.

In the same field of endeavor, Himmelstein teaches a resource table (i.e., from the log) for registering a capability of each member (**col. 9 line 45-col. 10 line 40**).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Nitadori as modified by Montague to include the teachings of Himmelstein for the purpose of specifying groups in which communication may be directed and to prevent flooding of information to other users that may not interested.

Consider **claim 11** and as applied to the vehicular communication apparatus according to claim 10, Nitadori as modified by Montague teaches wherein the registrar further creates a table for registering the members in virtual logic networks to which they belong (i.e., mobile units are registered in various routing tables and address database based on the condition or information in the packet. The routers can use this information to register the source or destination as part of the network based on conditions such as traffic management. Nitadori also noted that the router uses common routing protocols that are well known in the art) (**col. 5 line 60 – col. 6 line 60, col. 10 line 65- col. 12 line 15, col. 18 lines 34-40, and col. 14 line 49 – col. 16 line 7**), and the communicating party selector carries out communication by using the

member table of virtual logic networks according to an event when the event takes place (**col. 5 line 60 – col. 6 line 8, col. 14 line 49 –col. 15 line 15**).

However, Nitadori as modified by Montague does not specifically teach also creating a resource table for registering a capability of each member and the act of selecting a communicating party further comprises using the resource table to perform communication with the selected party.

In the same field of endeavor, Himmelstein teaches creating a resource table (i.e., a log) for registering (i.e., logging) a capability of each member and the act of selecting a communicating party further comprises using the resource table to perform communication with the selected party (**col. 9 line 45-col. 10 line 40**).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Nitadori as modified by Montague to include the teachings of Himmelstein for the purpose of specifying groups in which communication may be directed and to prevent flooding of information to other users that may not interested.

Consider **claim 12** and as applied to claim 10, Nitadori as modified by Montague and further modified by Himmelstein teaches the vehicular communication apparatus according to claim 10, comprising an inter-vehicle transmitter/receiver **16 (figure 2a)** and an inter-vehicle controller **16 (figure 2a)** (i.e., also (**col.4 lines 66- col. 6 line 48**)).

Consider **claim 13** and as applied to the vehicular communication apparatus according to claim 12, Nitadori as modified by Montague and further modified by Himmelstein teaches wherein the inter-vehicle controller has resource databases (i.e., directory service), such as a map database, a know-how database, a user profile database and an emergency database (**col. 5 lines**

Art Unit: 2617

**60-65, col. 6 lines 10-36, col. 14 lines 59-col. 15 line 15).**

Consider **claim 15** and as applied to the vehicular communication apparatus according to claim 14, Nitadori as modified by Montague and further modified by Himmelstein teaches receiving information for specifying a mobile unit identity and a condition from a mobile unit (**col. 5 line 60 – col. 6 line 43, col. 9 lines 50 – line 65, col. 10 line 65 –col. 12 line 44, col. 14 line 49- col. 16 line 18, and col. 17 line 42 – col. 18 line 43**), and referring to the received information, and if the mobile unit satisfies any one of various conditions, then registering the mobile unit as a network member of a virtual network based on the condition (i.e., mobile units are registered in various routing tables and address database based on the condition or information in the packet. The routers can use this information to register the source or destination as part of the network based on conditions such as traffic management. Nitadori also noted that the router uses common routing protocols that are well known in the art) (**col. 5 line 60 – col. 6 line 60, col. 10 line 65- col. 12 line 15, col. 18 lines 34-40, and col. 14 line 49 – col. 16 line 7**).

Consider **claim 18** and as applied to the vehicular communication apparatus according to claim 14, Nitadori as modified by Montague and further modified by Himmelstein wherein the communicating party selector further selects a particular member from among the members constituting the active network on the basis of an environment or situation change of the driver or vehicle or in response to a driver's request (**col. 5 line – col. 6 line 8, col. 14 line 49 –col. 15 line 15**), and establishes a connection to the selected member to communicate therewith(**col. 5 line 60 – col. 6 line 8, col. 14 line 49 –col. 15 line 15**).

Art Unit: 2617

Claims **19 and 20** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Himmelstein (U.S. Patent No.: 6,647,270)** in view of **(Naboulsi US Patent Pub. No.: 2003/0096593 A1)**

Consider **claim 19**, Himmelstein teaches a vehicular communication apparatus mounted in a vehicle to communicate with another mobile unit, comprising; an importance level determiner for determining an importance level regarding the necessity for communication with another mobile unit on the basis of the condition (**col. 4 lines 48 – 67, col. 5 lines 32-38, and col. 14 line 62**); an information-to-be-sent decider **40** (i.e., the microprocessor)(**figure 2**) for deciding on information to be sent on the basis of the importance level when it is determined necessary to communicate with another mobile unit (**col. 3 lines 28 – lines 67**); and an information transmitter **32** ( i.e., the RF ) transceiver for wirelessly transmitting the information to be transmitted to another mobile unit (**col. 3 lines 35 –50**).

However, Himmelsten does not specifically teach a sensor for detecting a physical condition of a driver in the vehicle; a monitoring sensor for monitoring a condition in the vehicle; a condition determiner for determining the condition of the driver on the basis of detection signals of the sensors.

In the same field of endeavor, Naboulsi teaches a sensor for detecting a physical condition of a driver **24** (see **figure 3 and paragraph 0041**); a monitoring sensor for monitoring a condition in a vehicle (i.e., see **figure 3 paragraphs 0041 –0054**); a condition determiner for determining the condition of the driver on the basis of detection signals of the sensors (i.e., see **figures 3 and 4 and paragraphs 0050-0075**).

Therefore it would have been obvious at the time the invention was made to modify the invention of Himmelstein as taught by Naboulshi for the purpose of having an integrated safety control system.

Consider **claim 20 and as applied to claim 19**, Himmelstein as modified by Naboulsi teaches the vehicular communication apparatus according to claim 19, further comprising: an information receiver **32**(i.e., the RF) for receiving information wirelessly transmitted (**col. 3 lines 35 –50**); an importance level determiner for determining the importance level of the received information (**col. 4 lines 48 – 67, col. 5 lines 32-38, and col. 14 line 62**); and an information output unit for supplying the received information if it is determined that the received information should be supplied to a user **46** (i.e., the AVI) (**col. 3 line 50- col. 4 line 21**).

### *Conclusion*

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Art Unit: 2617

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Shedrick whose telephone number is (571)-272-8621.

The examiner can normally be reached on Monday thru Friday 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kincaid Lester can be reached on (571)-272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Charles Shedrick  
AU 2617  
April 16, 2007

  
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SUPERVISORY PRIMARY EXAMINER